

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A vacuum pumping system having a process chamber, a load lock chamber, and a vacuum pumping arrangement comprising:

a drive shaft;

a motor for driving the drive shaft;

a molecular pumping mechanism comprising turbomolecular pumping means;

a backing pumping mechanism, wherein the drive shaft is for driving the molecular pumping mechanism and the backing pumping mechanism; and

an evacuation means for evacuating at least the turbomolecular pumping means prior to start up of the molecular pumping mechanism, wherein the evacuation means is decoupled from the load lock chamber during the start up of the molecular pumping mechanism, and decoupled from the molecular pumping mechanism in a manner that exhaust fluid from the molecular pumping ~~means-mechanism~~ bypasses the evacuation means during normal operation of the molecular pumping ~~means-mechanism~~.

2. (Previously Presented) The system as claimed in claim 1, wherein the vacuum pumping arrangement forms part of a semiconductor processing assembly and the evacuation means comprises a pump associated with the semiconductor processing assembly.

3. (Previously Presented) The system as claimed in claim 2, wherein the pump is a pump for a load lock chamber of the semiconductor processing assembly.
4. (Previously Presented) The system as claimed in claim 1, wherein the evacuation means comprises an ejector pump.
5. (Previously Presented) The system as claimed in claim 1, wherein the backing pumping mechanism comprises a regenerative pumping mechanism.
6. (Previously Presented) The system as claimed in claim 1, wherein the molecular pumping mechanism comprises molecular drag pumping mechanism.
7. (Previously Presented) The system as claimed in claim 1, wherein the evacuation means is for evacuating the vacuum pumping arrangement.
8. (Currently Amended) A method of operating a vacuum pumping arrangement in a system having a process chamber and a load lock chamber, the vacuum pumping arrangement having an evacuation means, a drive shaft; a motor for driving the drive shaft; a molecular pumping mechanism having turbomolecular pumping means; and a backing pumping mechanism, wherein the drive shaft is for driving the molecular pumping mechanism and the backing pumping mechanism, the method comprising the step of:

decoupling the evacuation means from the load lock chamber during the start up of the molecular pumping mechanism;

operating ~~an~~ the evacuation means connected to the arrangement to evacuate the turbomolecular pumping means to a predetermined pressure;

operating the motor to start rotation of the drive shaft; and

decoupling the evacuation means from the molecular pumping mechanism in a manner that exhaust fluid from the molecular pumping ~~means-mechanism~~ bypasses the evacuation means during normal operation of the molecular pumping ~~means-mechanism~~.

9. (Previously Presented) The method as claimed in claim 8, wherein the motor rotates the drive shaft when the predetermined pressure has been attained.

10. (Previously Presented) The method as claimed in claim 8, further comprising the step of starting the motor before or during evacuation of the turbomolecular pumping means to the predetermined pressure; limiting the torque of the motor to prevent overloading before evacuation; and operating the evacuation means to evacuate at least the turbomolecular pumping means to the predetermined pressure.

11. (Previously Presented) The method as claimed in claim 8, wherein the vacuum pumping arrangement forms part of a semiconductor processing assembly having a pump associated therewith which forms the evacuation means, further comprising the steps of connecting the pump to the arrangement and operating the pump to evacuate at least the turbomolecular pumping means to the predetermined pressure.

12. (Previously Presented) The method as claimed in claim 8, wherein the evacuation means comprises an ejector pump further comprising the steps of connecting the ejector pump to the arrangement; and operating the ejector pump to evacuate at least the turbomolecular pumping means to the predetermined pressure.

13. (Previously Presented) The method as claimed in claim 8, wherein the vacuum pumping arrangement is evacuated to the predetermined pressure.

14. (Previously Presented) The method as claimed in claim 8, wherein the predetermined pressure is 500 mbar or less.

15. (Previously Presented) The system as claimed in claim 5, wherein the molecular pumping mechanism comprises molecular drag pumping mechanism.

16. (Previously Presented) The system as claimed in claim 4, wherein the evacuation means is for evacuating the vacuum pumping arrangement.

17. (Previously Presented) The method as claimed in claim 13, wherein the predetermined pressure is 500 mbar or less.